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(54) Keyless motor vehicle entry and ignition system

(57) A keyless control system (10) is disclosed which may be employed to gain entry to a motor vehicle and start an engine. When using this system, a user activates a remote control (12) by selecting a function for the motor vehicle to perform. In response, a challenge number is exchanged and used in an encryption algorithm by both the remote control (12) and a control circuit (14) in the motor vehicle to produce independently of each other separate algorithm answers. A first verification indication is produced when the control circuit (14) finds both answers to be the same. The remote

control (12) also sends its unique remote control identification and a designation of the selected function to the control circuit (14). If the received remote control identification matches is on an authorized remote control list stored in the control circuit, a second verification indication is produced. When both the first and second verification indications are produced, the control circuit issues a signal that causes the motor vehicle to perform the selected function.

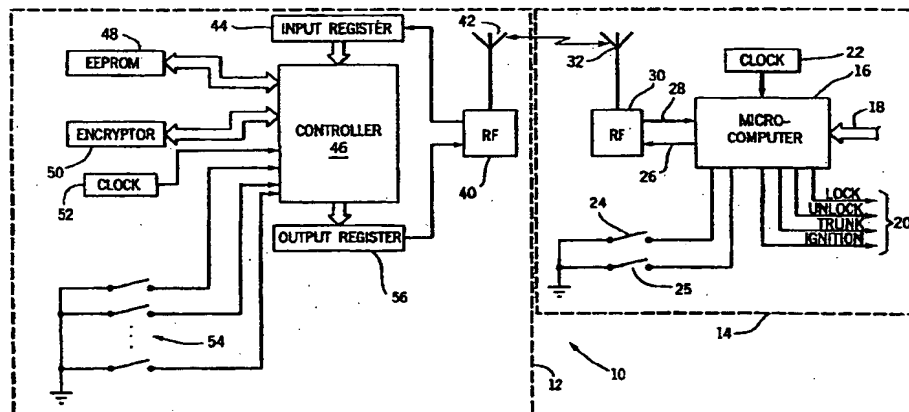


FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 23 February 2001	Examiner Buron, E
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document</p> <p>T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document</p>			

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Application Number
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CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document			

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